



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
WESTERN REGIONAL OFFICE
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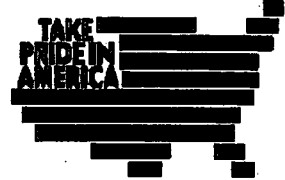
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IN REPLY
REFER TO:

Environmental Restoration & Compliance
602-379-6750

MAR 17 2000

Ms. Linda Jacobson
Environmental Protection Agency
Region 8
999 18th Street, Suite 500
Mail Code 8ENF-T
Denver, Colorado 80202-2466

RE: Comments Regarding Characterization of Hecla Mining Company's Pond 2

Dear Ms. Jacobson:

We appreciate the opportunity to participate and comment on work plans developed by Shepherd Miller, Inc., Ft. Collins, Colorado, on behalf of the Hecla Mining Company. As you probably know, the mission of the Bureau of Indian Affairs is to protect Indian trust assets and promote the quality of life through self-governance and government-to-government relationships and strategies. The establishment of permanent waste disposal facilities and the associated liabilities on Indian lands without significant tribal benefit is contrast to our mission.

Enclosed are general and specific comments associated with the work plans reviewed. We did not comment on components of the plans involving quality assurance/quality control and site safety and health. We will rely on the expertise of the Environmental Protection Agency to review and comment on these components of the work plans.

Regarding the work plans reviewed, more information is necessary concerning: (1) the history of activities involving waste deposition at Pond 2; (2) amounts and types of waste deposited at Pond 2; (3) engineering, design, and operation & maintenance associated with Pond 2; (4) the number and location of samples and the associated rationale; (5) procedural approaches regarding heavy equipment and increased sampling, drilling, and excavation; and (6) results anticipated from the investigation.

Additionally, in order to characterize Pond 2, and releases and potential releases from Pond 2, subsurface analysis under Pond 2 will be necessary. We believe any wastes generated during the investigation must be removed to an appropriate, permitted facility. Also, surveys will be necessary to adequately characterize and depict Pond 2 and the surrounding and subsurface areas.

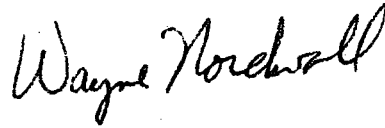
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Compliance & Enforcement

If you have any questions or require further information, contact Mr. John Krause, Regional Environmental Scientist, at 602-379-6750.

Sincerely,

A handwritten signature in cursive script, reading "Wayne Norchall". The signature is written in dark ink and is positioned above the typed name.

Acting Regional Director

Enclosures

**Comments Regarding the Soil Sampling and Analysis Work Plan
Bureau of Indian Affairs, Western Region
March 17, 2000**

GENERAL:

1. Pond 2 is round, about 500 feet in diameter, 30 feet deep, the periphery is built up five feet, "in a centerline manner", and maintains different types of waste. To understand this waste cell, more descriptive information is necessary. Topographical information as well as cell depths, liner type, and waste zone configuration is necessary. Survey information with 1-foot minimum contour accuracy is necessary.
2. Amounts generated and placed into Pond 2, and the cap placed on Pond 2, seepage locations near Pond 2, and the diversion ditch, need to be more thoroughly explained in order to have sufficient rationale for sampling locations and numbers.
3. It is unclear how the sampling plan will be implemented and what results will be obtained.
4. The plan as written does not comply with the intent of the Order.
5. The plan does not include any rationale or sampling to determine whether the liner is leaking and a migration pathway exists below the liner. Deep wells and associated soils and ground water sampling are recommended adjacent to Pond 2.
6. The plan does not discuss the potential for the discovery of saturated conditions within the waste cell. A contingency plan should be in place for sampling water within Pond 2.
7. The desired plan outcome should include surveyed sampling locations shown on site plan(s) and cross-sections.
8. Between both plans, redundancy exists. The two plans should be combined into one plan with two component plans. That way duplication of wording would be minimized.
9. Several references are made in the text regarding the Apex Site. It is recommended that references made to the Apex Site be deleted. We believe the Site is Pond 2 and the associated surrounding and subsurface areas.

SPECIFIC

Page 1, First Paragraph, First Sentence: The Site is better described as a waste disposal facility rather than a tailings impoundment.

Page 1, First Paragraph, Second Sentence: Pond 2 is better described as being a waste disposal facility utilized for the disposal of chemical and minerals processing wastes from 1984 to 1995 and for the disposal of wastes generated during the consolidation of all pond wastes and contaminated soils prior to OMG, Americas, Inc. (OMG) beginning operations.

Page 1, First Paragraph, Third Sentence: If further information exists regarding the physical characteristics of the liner, it should be stated in the text. If further information exists regarding the shape of the disposal cell, it should be provided in the text.

Page 1, Third Paragraph, Second Sentence: The use of the word representative should be deleted.

Page 2, First Paragraph: The relationship between Pond 2, and the other ponds is not clear. Are Ponds 2A and 2B components of the existing Pond 2?

Page 2, Second Paragraph: Did Hecla Mining Company (Hecla) continue the use of all ponds or just Pond 2? Operation of Ponds from 1989 to 1995 should be explained further here.

Page 2, Third Paragraph: A description of the amounts and types of wastes present in each pond prior to consolidation should be estimated and provided. Also, a description of the amount of wastes excavated from current OMG lease property should be provided. A further description of the cleanup plan and location and size of the ore stockpile should be provided. An explanation of the liner types disposed of in Pond 2 should be provided. This information may want to be included as an attachment.

Page 2, Third Paragraph, First Sentence: After OMG, Americas, Inc., insert: "with the exception of the 8.28 acres retained by Hecla as a result of an Amendment to the Lease with Shivwits Band of Paiutes on September 25, 1995 which includes Pond 2".

Page 2, Third Paragraph, Last Sentence: What is meant by "in a centerline manner"? A more understandable phrase should be used to define this construction.

Page 2, Fourth Paragraph: Delete this paragraph. See above comment under, "Page 2, Third Paragraph, First Sentence".

Page 2, Last Paragraph, First Sentence: The borrow material source(s) and the physical characteristics (i.e. permeability and soil type) of the material should be provided. The cover at Pond 2 does not resemble a dome. An explanation of the engineering associated with cap design and placement should be provided.

Page 2, Last Paragraph, Second Sentence: Does this sentence refer to the cap or the waste cell?

Page 2, Last Paragraph, Third Sentence: This sentence is unclear as to what it is attempting to explain. A clearer explanation of the diversion ditch function is necessary.

Page 2, Last Paragraph, Fourth Sentence: An explanation of the engineering associated with liner design to include capacity and design drawings should be provided.

Page 2, Last Paragraph, Fifth Sentence: How does Hecla operate and maintain the seepage collection system and evaporation pond? When was the system installed, who performed the design, and what operating procedures exist? Has the runoff ever been sampled, and if so, at what frequency?

Page 2, Last Paragraph: A topographical map is necessary to support this discussion.

Page 4, First Paragraph, Last Sentence: Insufficient rationale exists to reach this conclusion and the statement is not necessary.

Page 4, Third Paragraph: Rationale for the sample number and location must be provided.

Page 4, Last Paragraph, First Sentence: The word, "primary" does not appear to be necessary and may want to be deleted.

Page 4, Last Paragraph, Last Sentence: How will sampling be conducted to produce a minimum of five representative samples? How many samples will be taken at each location, and at what depths? What is meant by a representative sample?

Page 4, Last Paragraph: What about petroleum contaminated soil as alluded to on Page 2? Regarding the statement, "neutralized waste", was the waste treated with acid or caustic? Amounts of waste should be discussed as well as their origins as commented earlier should be discussed in the text.

Page 5, First Paragraph, Last Sentence: What are the number of samples....the five representative samples....for all of Pond 2? Under what rationale will the samples be increased? Clear sample delineation and rationale for sampling changes must be in the sampling plan.

Page 5, Second Paragraph, Third Sentence: How is it estimated that the Gallium and Germanium layer is 10 to 20 feet?

Page 5, Second Paragraph, Last Sentence: What is meant by generally? Will some excavations or drill holes not reach this layer, and if so, why?

Page 5, Third Paragraph, First Sentence: The rationale for the number and location of samples and the rationale for increasing sampling locations must be provided.

Page 5, Third Paragraph, Third Sentence: The extent of seepage should be determined by the change in metal or other contaminant concentrations as it relates to location and depth. Waste cell contaminant data and background conditions will assist in this analysis.

Page 5, Fourth Paragraph: What is the sampling plan if salt accumulations and saturated conditions exist below two feet?

Page 5, Last Paragraph, First Sentence: The rationale for the number and location of samples and the rationale for increasing sampling locations must be provided.

Page 5, Last Paragraph, Last Sentence: The extent of seepage should be determined by the change in metal or other contaminant concentrations as it relates to location and depth. Waste cell contaminant data and background conditions will assist in this analysis.

Page 6, First Paragraph: What is the sampling plan if salt accumulations and saturated conditions exist below two feet?

Page 6, Second Paragraph: Due to the movement of waste throughout the Site, the assumption of background conditions, at 0 to 4 inches, in the area of Pond 2, is suspect. Background locations should be conducted off of the disturbed 180-acre parcel in a pristine area. The Contractor will be required to obtain appropriate clearances (i.e. cultural resource survey and authorization) prior to this activity.

Page 6, Fourth Paragraph: The plan must include the rationale that will be used for the decision to use the backhoe or the drill rig. Will both pieces of equipment be onsite? Will one piece of equipment be used initially and the other mobilized under certain conditions?

Page 7, First Paragraph, Last Sentence: Wastes generated during backhoe excavation need to be contained with liners or placed in containers, characterized, and transported to an acceptable, permitted facility.

Page 7, Third Paragraph, Second Sentence: Wastes generated during drilling need to be placed in containers, characterized, and transported to an acceptable, permitted facility.

Page 8, First Paragraph: It is recommend that a full suite of metals as listed in 40 CFR 258 Apendices I and II be initially analyzed and evaluated.

Page 8, Last Paragraph: Samples not analyzed and decontamination materials and waste should be placed in containers, characterized and transported to an acceptable, permitted facility.

Comments Regarding the Leachate and Runoff Sampling and Analysis Work Plan
Bureau of Indian Affairs, Western Region
March 17, 2000

GENERAL:

1. Pond 2 is round, about 500 feet in diameter, 30 feet deep, the periphery is built up five feet, "in a centerline manner", and maintains different types of waste. To understand this waste cell, more descriptive information is necessary. Topographical information as well as cell depths, liner type, and waste zone configuration is necessary. Survey information with 1-foot minimum contour accuracy is necessary.
2. Amounts generated and placed into Pond 2, and the cap placed on Pond 2, seepage locations near Pond 2, and the diversion ditch, need to be more thoroughly explained in order to have sufficient rationale for sampling locations and numbers.
3. It is unclear how the sampling plan will be implemented and what results will be obtained.
4. The plan as written does not comply with the intent of the Order.
5. The plan does not include any rationale or sampling to determine whether the liner is leaking and a migration pathway exists below the liner. Deep wells and associated soils and ground water sampling are recommended adjacent to Pond 2.
6. The plan does not discuss the potential for the discovery of saturated conditions within the waste cell. A contingency plan should be in place for sampling water within Pond 2.
7. The desired plan outcome should include surveyed sampling locations shown on site plan(s) and cross-sections.
8. Other than Table 1, and Exhibits, the two plans are nearly identical with further information provided in the "Soil and Sampling and Analysis Work Plan". Between both plans, redundancy exists. The two plans should be combined into one plan with two component plans. That way, duplication of wording would be minimized.
9. Since runoff from the surface and cell at the Site are episodic in nature. The sampling event must occur at various intervals throughout the year and especially planned and coordinated after precipitation events.

SPECIFIC

Page 1: See "Comments Regarding the Soil Sampling and Analysis Work Plan" concerning Page 1.

Page 2: See "Comments Regarding the Soil Sampling and Analysis Work Plan" concerning Page 2.

Page 3: See "Comments Regarding the Soil Sampling and Analysis Work Plan" concerning Page 4.

Page 4: See "Comments Regarding the Soil Sampling and Analysis Work Plan" concerning Page 8.